1-1-2011

How to Capture High Calf Prices

Matthew Diersen
South Dakota State University, Matthew.Diersen@SDSTATE.EDU

ExEx5055
Revised Jan. 2011
Economics
3 pages

SDSU Extension Extra

South Dakota State University / College of Agriculture & Biological Sciences / USDA

How to Capture High Calf Prices

Matthew A. Diersen, Extension risk and business management specialist

Producers in South Dakota market a high proportion of the state's calf crop shortly after weaning. Generally, the largest volume of sales occurs during October and November ,with the calves commonly weighing 500–600 lb. This publication provides suggestions for producers who will be selling calves on how to capture the relatively high prices currently available.

Potential hedgers can become aware of forward prices available, especially given the increase in such activity in recent years. There are trade-offs when using the strategies presented. Basis is a consideration, and basis risk is quite large when cross-hedging stockers against feeder cattle futures or options contracts. The drawbacks, however, may be acceptable if producers can capture a very profitable calf price. Because multiple tools are available with the current price levels, a producer can also diversify by using more than one strategy.

NATURE OF THE RISK

Risks faced by the cow-calf producer looking at high prices are production risk and the risk from prices trending lower from current levels. If production risk is substantial, then a producer would not want to price cattle of a specific weight. You can determine price risk by measuring potential extent or tendency for prices to move lower.

The forward contract market for stocker cattle is thinly traded, but the futures market for feeder cattle can serve as a close substitute. A cow-calf operator looking to sell stocker cattle in November could look at changes in the November feeder cattle futures prices from June through November (table 1). From 2001 to 2010 the futures price has declined by as much as $17.57 per cwt. and increased by as much as $17.24 per cwt. Thus, there can be significant downside risk, but producers would also be hesitant to forward-price cattle because of the potential for prices to move substantially higher.

Another issue of concern when looking at price risk management for stockers is basis risk. Basis is the difference between a cash price and a futures price, normally of the same commodity. However, the futures price available is tor feeder cattle (steers weighing 650–849 lb) and the cash price of interest is for stocker cattle (steers weighing 500–600 lb). Thus, a cross-hedge situation exists with additional basis risk compared to pricing feeder cattle.

The stocker basis shown is the cash price for stockers minus the futures price for feeders (table 2). For a producer who sells stockers in November, the price received from 2001 through 2010 ranged from $6.06 to $21.04 per cwt. over (or above) the price of feeder cattle futures during November. In general, the stocker basis is positive in South Dakota; it tends to narrow with higher corn prices, and it tends to widen with higher live cattle futures prices.

PRICING STRATEGIES

One way to capture high calf prices is to use cash-forward contracts. The buyer and seller reach an agreement regarding price, weight, delivery date, and who pays for delivery. Relationship risk exists using forward contracts, as one of the parties may be unable to fulfill the contractual obligations either at all or in a timely manner. The Agricultural Marketing Service (AMS) reports forward prices and delivery dates for

feeder cattle in South Dakota through various price reports and video/Internet auction reports.

Table 1. Historic changes in November feeder cattle futures prices from June until November

	Level in June	Level in November	Change
	----------($/cwt)---------		
2001	91.51	84.89	-6.62
2002	76.89	82.88	5.99
2003	85.78	103.02	17.24
2004	105.14	107.95	2.81
2005	106.50	115.81	9.31
2006	109.68	99.65	-10.03
2007	108.72	109.83	1.11
2008	114.54	96.97	-17.57
2009	98.51	95.10	-3.41
2010	110.25	107.98	-2.27

Table 2. November South Dakota stocker basis

	Cash	Futures	Basis
	----------($/cwt)---------		
2001	95.10	84.89	10.21
2002	88.94	82.88	6.06
2003	111.38	103.02	8.36
2004	121.59	107.95	13.64
2005	136.85	115.81	21.04
2006	113.16	99.65	13.51
2007	120.00	109.83	10.17
2008	105.94	96.97	8.97
2009	105.45	95.10	10.35
2010	127.43	107.98	19.45

The AMS releases the weekly "National Feeder and Stocker Cattle Summary" report (also labeled SJ_LS850) on Fridays. The report generally has direct sales throughout the year for current placement into South Dakota feedlots. For direct sales the producer would need to find a buyer. Video auction sales list feeder cattle sourced from north-central states (a region that includes South Dakota). During mid- to late summer there are often sales quoted with a future delivery date.

Another pricing strategy is to sell futures. Stocker cattle can be cross-hedged using feeder cattle futures contracts. For the producer who will sell stocker cattle, a hedge is placed by selling feeder cattle futures. The feeder cattle futures contracts are for 50,000 lb or 500 cwt. Dividing the contract size by 550 lb implies about 90 head of stockers can be cross-hedged with each futures contract. To sell a futures contract or trade an options contract, the producer will need a commodity broker. Most brokers can explain the industry terms and help implement the strategies described here. Selling futures contracts and certain option strategies will require margin money. A producer should work with a knowledgeable agricultural lender to handle any margin calls.

In June, a producer could cross-hedge calves using November feeder cattle futures. When the futures prices are unbiased and reflect a non-storable commodity, selective hedging is the only way to exceed average returns. Hedgers must decide what price level is high enough, and then place their hedge. Should feeder cattle prices decline by November, lower returns on the cash side would be offset by gains on the futures side. Cross-hedging does not fix the basis. Thus, basis could narrow and reduce cash returns. Basis tends to be wide in years when futures prices are relatively high during the early summer months, but basis is not related to subsequent changes in futures prices. To evaluate different pricing strategies, compare forward prices to the feeder cattle futures price plus the stocker basis. The strategy with the higher price would likely be preferred. Remember that the seller forgoes any price increase once the stockers are contracted.

PROTECTION STRATEGIES

Another effective way to cross-hedge stockers is to use feeder cattle put options. Buying put options leaves the upside open, meaning that if prices rise the hedger will have higher returns compared to selling futures. Buying put options reduces the risk of prices moving lower to the risk of basis narrowing. Put options come at a cost. For example, consider a put option with a strike price of $100 and a premium of $4.00 per cwt. Because the contract is for 500 cwt., the out-of-pocket premium is $2,000 plus a broker commission. If a hedger uses the put option to protect 90 head of stockers, the cost is $22.22 per head, or $3.64 per cwt. From the strike price ($100), subtract the premium level ($3.64) and add the most narrow

basis ($6.06) to obtain the expected floor price of $102.42 per cwt.

Producers can also purchase Livestock Risk Protection (LRP) on calves. LRP is price insurance with specific coverage periods, ending values, and coverage levels. LRP uses a basis on steer calves of 110% of the feeder cattle price. LRP coverage can be tailored to cover a small number of head, whereas a put option is for a contract size of 500 cwt. Thus, when covering few head, LRP may be cheaper than put options while providing the same type of price protection. LRP should be purchased with an ending date closest to the earliest marketing date of the calves.

In the event of high prices and very high volatility, you can use synthetic put options. Here, a hedger would sell a futures contract and buy an out-of-the-money call option—that is, a call option with a strike price above the futures price. A synthetic put is a way to get a floor price closer to the futures price compared to buying a put option outright. One drawback is that the hedger faces a large cash outlay when buying a call option. Another drawback is the potential for margin calls if the hedger sells a futures contract. Hedgers who have cash forward contracted could also buy call options to again have upside price potential.

South Dakota
Cooperative Extension Service

SDSU

EXEX5055 Access at http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx5055.pdf